

## FUTURE WAR CHIEFS TO WORK IN AIR

Commanding Officers Must  
Direct Forces From Above,  
Says Expert.

BARTLETT TO MAP POLE

Aero Men at Annual Dinner  
See Glowing Picture of  
Time to Come.

In future warfare—assuming that war is not ended for keeps—the commanding officer in the field will not be stationed in hidden quarters back of the line but will be in an airplane or dirigible right over the fighting, directing his forces by wireless telephone while protecting planes swarmed around him.

Such is the vision evoked by a prediction made last night at the thirtieth annual dinner of the Aero Club of America by Major-General Charles T. Menoher, director of the Army Air Service, recently commander of the Forty-second (Rainbow) Division in France.

It was announced at the dinner that William K. Vanderbilt has given \$10,000 and Charles H. Sabin \$5,000 to start a fund of \$250,000, enabling Capt. Bartlett, head of the Roosevelt aerial expedition, to fly to the north pole, and that John Hay Hammond, Jr., has perfected radio devices whereby Capt. Bartlett and his comrades can survey and map accurately the polar regions while flying at a great height and at the rate of eighty miles an hour.

Gen. Menoher, after saying that in recent artillery practice in California an airplane observer using the radio telephone actually commanded a battery, giving the commands necessary to bring the fire of the guns on the target, continued:

"This by an observer hastily trained in artillery observation and in a period of time comparing most favorably in the results obtained with ground observation by well trained artillerymen."

### General in the Clouds.

"I look to see in the very near future, in a matter of months only perhaps, not only the control and direction of artillery from planes but the command of the line of battle exercised from the air instead of some outpost out of sight and more or less out of touch with the situation."

"Here is where the fighting pilot will find his true place, not in seeking independent individual combat, but in guarding his commander from enemy attacks."

Gen. Menoher also said that in the past too much prominence has been given the fighting aviator as against the observer. The fact is, he said, that just as the only determining factor is

the infantry soldier, just as he has always been "the ace of aces in this war game," so in the air game "the observer is the one for whom all others in the air service are but servants."

"He is the one," the General added, "who fulfills the primary function of the air service—to be the eyes of the army. I do not wish to be understood as even attempting to belittle in the slightest degree the prestige or importance of the fighting pilot. I am only attempting to enhance the importance of the more modest perhaps, certainly the less romantic, observer."

Speaking of the peace time reorganization of the air service Gen. Menoher said he had laid down the principle "that all things being equal, the flier must be given the preference over the non-flier, and again that, all things being equal, the man who has had service in contact with the enemy must be given preference over one who has not had such service."

He promised that the Air Service would cooperate with civilians so far as possible, subject to the limitations of Congressional appropriations, in enabling the United States, "where aviation had its birth, to gain and maintain the lead in aviation."

### Memorial for Aviators.

Capt. Edward V. Rickenbacker, American ace of aces, said that Americans should provide a memorial for the aviators killed in the war.

"Whatever success I have had," he said, "is due to the tutoring of Major Raoul Lufbery. In a little graveyard near Toul rests Lufbery, Hober Baker, Lieut. Blair Thaw and a dozen others. We should name a memorial to these men, for after all they were the real heroes and the inspiration to us boys who had the good fortune to come back and receive the ovation and see the multitude. There should be something to perpetuate the memory of the boys who were left behind. If I had my way about the parents of these boys, the mothers would have the decorations that I've got to-day. Those who gave their all for the cause that brought us fame are the men to whom honor is due. Don't forget to suggest that each member of the Aero Club should contribute his mite to a memorial for the men who shall not come back."

A text for the discussion and announcements heard by a thousand diners might have been found in a cablegram from Gen. Pershing and a letter from Major-General Wood. Gen. Pershing cables:

"The Aero Club has an opportunity to bring peace time aviation to a dream of usefulness to the world which will in part compensate for the expenditure of blood and treasure during the war."

This was Gen. Wood's message: "I earnestly hope that the Aero Club of America will push forward the work on aeronautics and put it on a sound basis in this country. We must never again be caught unprepared in the air."

The explorers present, including Capt. Bartlett, John Greenough, president of the American Geographical Society, and Henry Fairfield Osborn, president of the American Museum of Natural History, gave their opinion that Mr. Hammond's conception greatly simplified aerial exploration. Rear Admiral Robert E. Peary, whom Lufbery kept from the dinner, sent a letter saying:

"The plan to send Capt. Bartlett to ex-

plore the Arctic regions from the air is an epoch making event in the history of science and revolutionizes exploration. Permit me to urge that you bring the attention of the country to the fact that to-day aeronautics offers even greater possibilities than the railroad field did to the Vanderbilt, Harriman, Hill and the other great railroad builders. The world is ready for aerial transportation, and the men whose foresight leads them to put their efforts into establishing air lines will find aeronautics to offer greater possibilities than were offered by any other line of human endeavor."

### Two Entries for Northlife Prize.

It was announced that the national balloon races will be held at St. Louis this year. A cablegram from the Royal Aero Club of Great Britain announcing the receipt of two entries for the \$50,000 prize offered by Lord Northcliffe for the first transatlantic flight made within twenty-two hours was read.

The Royal Aero Club also hopes to arrange an international marine flying contest for the \$5,000 trophy and \$5,000 prize offered by Jacques Schneider, a French sportsman. If this event takes place there will be American entries. War conditions permitting there will also be international airplane and balloon races, one in France and one in the United States.

The Clarence H. Mackay trophy, offered through the Aero Club for annual army competition, was awarded to Capt. Edward V. Rickenbacker, the American ace, by a board appointed by Gen. Kenly and consisting of Col. Townsend P. Dodd, Lieut.-Col. Byron Q. Jones, Lieut.-Col. Herbert A. Dargue and Lieut. Sidney T. Thomas.

Explaining his plan of mapping the polar regions by airplane and wireless, Mr. Hammond said:

"The present war has contributed three important scientific developments for the purpose of exploration. First, the airplane; second, the application of directive radio signaling to aircraft, and third, the development of aerial photography."

"I have devised a system, the main principles of which are extremely simple, embodying these three technical developments in a system of aerial surveying, utilizing which it should be possible to vast tracts of territory to be mapped with accuracy and speed never before attained in mapping."

### Will Fly Over Ice Fields.

"It is hoped to apply this system in the exploration of the polar basin, a vast territory concerning which has but little knowledge. We hope to achieve by the use of these new instrumentalities results in a few months which before would have required years of the enduring and almost superhuman struggle which characterized Admiral Peary's extraordinary achievements."

"We expect to establish a number of radio goniometers, or so-called radio direction finders, at the ends of an extended base line whose limits will be approximately from MacKenzie Bay to Cape Columbia. Airplanes suitable for the type of exploration in hand will be equipped with powerful radio transmitters."

"It will be the purpose then of the explorer to take the airplane and travel along at the high speed of 70 or 80 miles an hour to fly out over the great ice-

fields of the unexplored Arctic basin. On account of the open weather during certain seasons of the year it will be entirely feasible for a base for the airplane to be established at some suitable point on the northernmost land.

"The explorer, flying across the ice-fields, may observe a continental formation of land which may be noticed partly by its denudation of snow which occurs during the summer months and partly on account of its difference of altitude from the ice fields. Numerous observations taken at the same points some weeks apart would clearly tend to differentiate between permanent land formations of ice fields. When the flier observes this continental formation he will change his course so as to fly along the contour of this land so as ultimately to encircle it."

"At regular intervals he will emit a characteristic signal which will be detected by the direction finders on terra firma. In order to form an accurate check of the system a photograph is taken at each interval that the signal is sent out from the plane, which, if I may coin a new word, is 'contouring' the land. This photograph will show in great detail the exact formation of the coast line below."

"Thus a series of photographs will be taken all successively attached to one another in a final composition showing progressively the outline of the coast. When they are finally assembled by special device which we have developed each picture will show upon its face the compass bearing the direction which the coast line follows with relation to the true north in this way by assembling photographs at the end of the run and by attaching them consecutively we will have a complete picture of the formation of the land geographically taken."

"At the same time we will have the path of the flight of the airplane mapped by the direction finder system on shore, and since this path of flight has been along the coast line we will therefore have another map of the new island or continent."

"Now by superimposing the photographic map upon the radio direction finding map we will be able to eliminate practically all the errors and to fill in all the details of the characteristics of the outline of the new territory, thus achieving at the rate of 80 miles an hour a method of surveying whose accuracy is such as to prove a valuable factor in exploration."

"Without enduring the physical dangers of mountain climbing, the dangers of the fever-stricken swamps of tropical lands or the treacherous icefields of polar regions, the modern explorer will be able to cover while flying thousands of feet above the surface of the earth at a great speed vast territories which he can map with an accuracy which these inaccessible regions have heretofore prohibited."

### Many Casualties Preventable.

Brig.-Gen. Theodore C. Lytner, head of the Medical Air Service, said that 90 per cent. of the flying casualties among the Allies in the first three years of the war were due to some fault of the pilot, and that half of such casualties are now known to be preventable, as shown by our experience in France since the enforcement of simple medical preventive measures. Applying this lesson to civilian flying in

the future, Gen. Lytner said:

"We know that you, who are going to be responsible for the selection, classification and maintenance of the future pilots, will not neglect to read the history of the last two years and that you will see that these natural common sense preventive measures are enforced. 'Select your flying personnel' carefully. Maintain the pilot at safety efficiency. Frequent reexaminations have been found by us necessary and should be continued in the presence of the expeditionary forces in France to the aviators of America. Four years of war have developed flying to a point beyond belief. American aviators have mastered the art and mechanics of flying and have advanced still further the tactics of aviation our allies taught us. We all take pride in their spirit of devotion, their gallantry and their deeds of heroism."

"In honoring the work performed by our intrepid pilots let us not forget those

observers and the officers and men on the ground on both sides of the ocean whose valuable assistance is likely to be overlooked in the presence of more spectacular achievement but without whom the Air Service could not have functioned."

In addition to the sentence already quoted from Gen. Pershing's message the General telegraphed: "On the occasion of the thirtieth annual banquet of the Aero Club of America am glad to send greetings of the American Expeditionary Forces in France to the aviators of America. Four years of war have developed flying to a point beyond belief. American aviators have mastered the art and mechanics of flying and have advanced still further the tactics of aviation our allies taught us. We all take pride in their spirit of devotion, their gallantry and their deeds of heroism."

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**COHAN & HARRIS THEATRE** Eves. 8:10. Mat. Sat. & Wed. 2:10. **Biggest Hit in the History of Musical Comedy THE ROYAL VAGABOND** A Cohanized Opera Comique. Book & Lyrics by Seymour Chaskin. Music by Dr. Arnold Shostak.

**LONGACRE** West 48th St. near Broadway. Eves. 8:30. Mat. Sat. & Wed. 2:10. **THREE FACES EAST** with Emmett Corrigan and Violet Heming

**SPECIAL MATINEE TO-MORROW 2:30. "GHOSTS"** in a new comedy by Henry Miller. Theatre, 134 Eves. 8:30. Mat. Sat. & Wed. 2:30. **Mrs. FISKE** in a new comedy "Mis' Nelly of Orleans"

**LIBERTY** West 42d St. Eves. 8:30. Mat. Sat. & Wed. 2:30. **DITRICHSTEIN & THE MARQUIS DE PRIOLA**

**BELASCO** West 44th St. Eves. 8:30. Mat. Sat. & Wed. 2:30. **MATINEE TODAY AT 2:30 FRANCES STARR** in "TIGER! TIGER!" A New Play by Winchell Smith & John L. Golden. Hits Gaiety **LIGHTNIN** 3:45 Eves. 8:30. Mat. Sat. & Wed. 2:30. **CRITERION** 3:45 Eves. 8:30. Mat. Sat. & Wed. 2:30. **STANDARD** 3:45 Eves. 8:30. Mat. Sat. & Wed. 2:30. **FLO-FLO** MATINEE TO-DAY 2:30. Next Week "Annie's Ghost." The Voice of McConnel

**METROPOLITAN OPERA** Tonights (Don't Miss!) Cav. Rustica. Mus. L. L. Chabrier. Cond. Morosini. Cond. Morosini. P. 1. N. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

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**VELVET LADY** ATOP NEW AMSTERDAM THEATRE **ZIEGFELD & MIDWINTER** TWO ENTIRELY DIFFERENT SHOWS

**LYCEUM** West 43d St. Eves. 8:30. Mat. Sat. & Wed. 2:30. **MATINEE TO-DAY AT 2:30. DAVID BELASCO Presents**

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**COHAN'S THEATRE** 4th & 40th Sts. Eves. 8:30. Mat. Sat. & Wed. 2:30. **"A PRINCE THERE WAS"** LITTLE AND LITTLE THAT TURNS 'EM AWAY

**CORT** West 48th St. Eves. 8:30. Mat. Sat. & Wed. 2:30. **THE BETTER DIE** with **MRS. COBURN**

**PUNCH & JUDY** 49th St. Eves. 8:30. Mat. Sat. & Wed. 2:30. **STUART WALKER**

**THE BIG SENSATION OF THE YEAR** **THE GODS OF THE GOLDEN DOOR** MATINEE TO-DAY

**KNICKERBOCKER THEATRE** Eves. 8:30. Mat. Sat. & Wed. 2:30. **JOHN CORT'S NEW MUSICAL COMEDY "LISTEN, LISTEN!"**

**N. Y. SYMPHONY** SOCIETY **WALTER DAMROSCH, Condr.** **CARNEGIE Hall, Sat. Feb. 22. SYMPHONY CONCERT FOR YOUNG PEOPLE** Soloists: Harold Bauer, Arthur Schnitzler, Beethoven's Fifth Symphony, Brahms's Fifth Piano Concerto.

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